

Appl. No. 09/980,413
Reply to Office Action of April 21, 2004

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-7 (Canceled).

8. (Currently Amended) A mixture for use in tanning leather, said mixture comprising:

(I) a phosphorus-containing compound selected from the group consisting of

tris(hydroxymethyl)phosphine (THP);

tetrakis(hydroxymethyl)phosphonium salts (THP⁺salts);

condensates of THP with organic nitrogen compounds (THP condensates); and

compounds of the formula $RP(CH_2OH)_3$, wherein R is an organic group which does not react chemically with collagen in said leather (THP analogues); and

(II) at least one water-soluble moderator selected from the group consisting of

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(A) metaphosphate salts and

(B) aliphatic polyhydroxy or polypyrrolidone compounds selected from the group consisting of sorbitol, glycerol, trimethylolpropane, pentaerythritol, mannitol, mono and di-saccharide sugars, alginates[[, polyvinyl alcohol]] and polyvinyl pyrrolidone.

9. (Previously Presented) The mixture of claim 8, wherein said phosphorous containing compound consists essentially of a condensate of from 2 to 6 moles THP with 1 mole urea.

10. (Currently Amended) The mixture of claim 8, wherein said at least one water-soluble moderator is selected from the group consisting of sorbitol, glycerol, trimethylolpropane, pentaerythritol, mannitol, mono and di- saccharide sugars, alginates[[, polyvinyl alcohol]] and polyvinyl pyrrolidone.

11. (Previously Presented) A method of tanning leather which comprises contacting the collagen in said leather with a tannage comprising the mixture of claim 8.

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12. (Previously Presented) The method of claim 11, further comprising tanning said leather with a syntan and/or a mineral tannage and wherein said mixture is contacted with the collagen in said leather prior to, simultaneously with, or after tanning of said leather with the syntan and/or mineral tannage.

13. (Previously Presented) The method of claim 11, wherein said leather is fat liquored subsequent to said tanning.

14. (Previously Presented) The method of claim 11, wherein said leather is shaved and/or split subsequent to said tanning.

15. (Previously Presented) The mixture of claim 8 wherein the water-soluble moderator is selected from the group consisting of said metaphosphate salts.

16. (Previously Presented) The mixture of claim 8 comprising THP and moderator in a relative proportion ranging from equimolar amounts up to an excess of THP in a 20:1 molar ratio.

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17. (Previously Presented) The mixture of claim 16 wherein the relative proportion of THP to the moderator is between 10:1 and 2:1 molar.

18. (Previously Presented) The mixture of claim 16 wherein the water soluble moderator is the (A) metaphosphate salts.

19. (Previously Presented) The mixture of claim 8 wherein the water soluble moderator is said polyhydroxy compounds.

20. (Previously Presented) The mixture of claim 8 wherein the water soluble moderator is said polypyrrolidone compounds.

Claim 21 (Canceled).